

Claims

1. A wireless data communication terminal sharing a data communication resource with a plurality of other data communication terminals, the wireless data communication terminal being operable to receive channel status information from a wireless serving communication terminal on an outbound channel and to transmit data to said wireless serving communication terminal on an inbound channel, the wireless data communication terminal comprising a processor operable to monitor channel status symbols inserted on the outbound channel; and to regulate time intervals between successive data transmissions on said inbound channel dependent upon said monitored channel status symbols inserted on the outbound channel.
2. The wireless communication terminal according to Claim 1, wherein said monitored channel status symbols inserted on the outbound channel indicate a current status of the inbound channel, thereby enabling said wireless communication unit to transmit data packets on said inbound channel dependent upon adaptive channel loading of the inbound communication resource.
3. The wireless communication terminal according to Claim 1, wherein said processor is operable to determine a number of busy or idle timeslots in said data transmission on the outbound channel, and to determine what time interval should be set between two successive data messages based on said determination.
4. The wireless communication terminal according to Claim 2, wherein said processor is operable to determine a number of busy or idle timeslots in said data transmission on the outbound channel, and to determine what time interval should be set between two successive data messages based on said determination.

5. The wireless communication terminal according to Claim 3, wherein said processor is operable to employ a dual counter mechanism, including a first counter to count a total number of channel state symbols transmit on said outbound channel and a second counter to count a number of channel-busy or channel-idle indications of said channel state symbols, wherein said processor is operable to determine whether to increase or decrease said time intervals between successive data transmissions dependent upon whether said ratio of counters exceeds or is below at least one threshold value.

6. The wireless communication terminal according to Claim 4, wherein said processor is operable to employ a dual counter mechanism, including a first counter to count a total number of channel state symbols transmit on said outbound channel and a second counter to count a number of channel-busy or channel-idle indications of said channel state symbols, wherein said processor is operable to determine whether to increase or decrease said time intervals between successive data transmissions dependent upon whether said ratio of counters exceeds or is below at least one threshold value.

7. A wireless data communication system supporting an RD-LAP data transmission protocol including a plurality of wireless data communication terminals, wherein the terminals share a data communication resource, and each of the terminals is operable to receive channel status information from a wireless serving communication terminal on an outbound channel and to transmit data to said wireless serving communication terminal on an inbound channel, each wireless data communication terminal comprising a processor operable to monitor channel status symbols inserted on the outbound channel; and to regulate time intervals between successive data transmissions on said inbound channel dependent upon said monitored channel status symbols inserted on the outbound channel.

8. A method of sharing a data communication resource in a wireless data communication system, wherein at least one wireless data communication terminal receives channel status information from a wireless serving communication terminal on an outbound channel and transmits data to said wireless serving communication terminal on an inbound channel, the method comprising the steps of:
- 5 inserting channel status symbols on said outbound channel by said wireless serving communication terminal; and
- monitoring, by said at least one wireless data communication terminal, channel status symbols inserted on said outbound channel;
- 10 regulating time intervals between successive data transmissions on said inbound channel, by said at least one wireless data communication terminal, dependent upon said monitored channel status symbols inserted on the outbound channel.
- 15 9. The method according to Claim 8, wherein said step of inserting channel status symbols on the outbound channel indicates a current status of the inbound channel.
10. The method according to Claim 8, including the steps of:
- 20 determining a number of busy or idle timeslots in said data transmission on the outbound channel; and
- determining what time interval should be set between two successive data messages transmit from said wireless data communication unit based on said determination of a number of busy or idle timeslots.

11. The method according to Claim 8, including the steps of:
employing a dual counter mechanism, wherein a first counter counts a total
number of channel state symbols transmit on said outbound channel and a second
counter counts a number of channel-busy or channel-idle indications of said channel
5 state symbols; and
determining whether to increase or decrease said time intervals between
successive data transmissions dependent upon whether said ratio of counters exceeds
or is below at least one threshold value.
- 10 12. The method according to Claim 10, including the steps of:
employing a dual counter mechanism, wherein a first counter counts a total
number of channel state symbols transmit on said outbound channel and a second
counter counts a number of channel-busy or channel-idle indications of said channel
state symbols; and
15 determining whether to increase or decrease said time intervals between
successive data transmissions dependent upon whether said ratio of counters exceeds
or is below at least one threshold value.

13. A storage medium storing processor-implementable instructions or data for controlling a processor to carry out a method of sharing a data communication resource in a wireless data communication system wherein at least one wireless data communication terminal receives channel status information from a wireless serving communication terminal on an outbound channel and transmits data to said wireless serving communication terminal on an inbound channel, the method carried out by the processor comprising the steps of:

5 inserting channel status symbols on said outbound channel by said wireless serving communication terminal; and

10 monitoring, by said at least one wireless data communication terminal, channel status symbols inserted on said outbound channel;

regulating time intervals between successive data transmissions on said inbound channel, by said at least one wireless data communication terminal, dependent upon said monitored channel status symbols inserted on the outbound

15 channel.